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DISEASES AND MORTALITY OF THE FOREIGN POPULATION OF LOWELL.

[A paper read at a recent meeting of the Middlesex North District Medical Society, by
N. ALLEN, M.D.]

If there is anything peculiar in the diseases or relative mortality of one class over another in the community, it cannot fail to interest every medical man. As the foreign element of our population is constantly increasing, and the duties of our profession call us into familiar intercourse with that element, it may be interesting to inquire what are the peculiarities which distinguish, in the matter of sickness and mortality, the foreign population from the American. The question as to the various causes producing differences in the diseases and mortality between those of foreign parentage and native-born citizens, is becoming an important subject of inquiry in all our large cities and villages. In order to furnish some positive data on these subjects, we will first examine the census of the two classes, and then notice their diseases and relative mortality. In 1850 the census of Lowell was as follows:—

Whole number	32,620	Between 5 and 15 y's,	5,415
American,	22,549	American,	3,420
Foreign,	10,071	Foreign,	1,995

Number of children under 5 years of age, of foreign parentage, 1354. The number of American children under 5 was not taken separately. But it would not bear the same ratio to the whole American population, as those of foreign parentage to the number of foreigners; as the latter, probably, multiply faster, and therefore have relatively a larger share of children. On this account they would have a greater comparative amount of sickness and mortality. No separate record of the deaths of the two classes has ever been kept by the city clerk, but a careful examination of the official report of deaths, the names of the deceased, the places of burial, and inquiry of the undertakers in cases of doubt, will enable us to distinguish with considerable accuracy the foreign deaths from those of Americans. From such an examination, we gather the following facts in reference to the year 1851. The whole number of deaths reported from January 1st, 1851, to January 1st, 1852, was 629.

American deaths 336, or 1 to 67 of the inhabitants.

Foreign deaths 293, or 1 to 34 of the inhabitants.

Thus in proportion to the whole number of each, we find the rate of mortality nearly twice as great among the foreign as among the native population. And what is a singular fact, this rate of mortality applies in almost the same ratio to all ages. We should naturally expect to find it greater in the children of foreigners than in those of native-born citizens. But the following facts will show that the proportion of deaths in each class is almost the same in youth and adult age as in childhood. The whole number of those who died over 15 years of age, was 257: Americans, 139; foreigners, 118; being but 21 more Americans, though the latter contribute more than two thirds of the whole population. Between 5 and 15 years of age, the whole number of deaths was 49: Americans, 28; foreigners, 21; being 1 to 131 of the former, and 1 to 95 of the latter. Under 5 years of age, the whole number of deaths was 312: of Americans, 158; of foreigners, 154.

We cannot here give the respective rates of mortality in each class, as the relative numbers of each were not given in the census. But from the best estimate we can make, the proportion of deaths would not vary very much from those previously obtained.

A more particular examination of the diseases of which the two classes died, develops some interesting facts. Bearing in mind that the American population is more than twice the foreign, we can easily determine the relative proportion of the different diseases to each class. The respective number of deaths from the 12 most fatal diseases of 1851, were reported as follows:—

	American.	Foreign.		American.	Foreign.
Consumption,	72	63	Croup,	11	8
Inflam. of lungs,	22	5	Scarlet fever,	7	5
Cholera infantum,	17	5	Dysentery,	12	15
Typhoid fever,	15	9	Diarrhoea,	2	27
Measles,	9	28	Convulsions,	9	14
Dropsy of brain,	16	19	Teething,	13	11

From this report it appears that nearly twice the number of Irish die with consumption, according to their population, as of Americans. This proving different from our expectation, we examined the reports of two other years on this point, and found it fully confirmed. It has been stated by medical writers, that the Irish in their own country are not, as a class, so liable to consumption, as the natives of England or America. The report of deaths from phthisis in Ireland is not proportionally as great as in Scotland or England. There is not the same degree of hereditary tendency to tubercular diseases of the lungs among the Irish, as among the English or Americans. Scrofula among them assumes other forms and attacks other parts than those in which we find it among their neighbors.

Now what should increase this liability to consumption in this country and in our city? and does this fact exist generally? These are interesting questions, and worthy of investigation. It is stated that the mortality is twice as great among the children of foreigners in Boston under 5 years, as among American children; but this ratio of deaths does not hold good among adults, particularly in regard to consumption. What,

then, are the especial causes of so great an amount of consumption among the foreign population of this city? The opinion has also been advanced by some of our physicians, that there has been of late years considerable increase of this disease among that class of people. It may be difficult to assign all the causes of this actual or relative increase, but some of them may be readily mentioned.

1st. *Breathing so much foul air.*—The Irish live, many of them, in cellars, in crowded apartments, and in such unwholesome localities, that they must breathe almost half of the time a *poisoned* atmosphere. This cause is probably more fruitful of lung disease than any other.

2d. Another cause may be found in the great neglect, on the part of the Irish, of colds, coughs, and other diseases affecting the lungs—doing scarce anything to check or cure them till it is too late.

3d. There is also great carelessness on their part in guarding against sudden changes of weather, as well as in the exposure of going into and out of the mills, subjecting themselves to great alternations of temperature. The difference of climate between Ireland and this country, probably contributes to the same effect.

On the other hand, it may be alleged that some of our American operatives, when taken with this disease, go into the country and die among their friends, thus diminishing the mortality from that source. But the number of such cases is so small—being not more than one fifteenth of the cases occurring among them—as not to change materially the relative mortality.

In fevers, the ratio of deaths was greater among the Americans; while in measles and diseases of the abdomen, the Irish suffer more severely than our people.

Another mode of comparing the rate of mortality of the foreign population with the American, would be to take a certain district of the city entirely occupied by them, and another district occupied by an equal number of our own people, and then institute a comparison of both the diseases and the deaths of the two districts for one or more years. This mode would show the influence of locality and other physical agencies on health and longevity. Such a comparison, carefully instituted throughout the city, would be very instructive in a sanitary point of view. Valuable information might thus be obtained in reference to the various causes of disease in our city. From such a comparison it would probably appear that the diseases from which the Irish suffer most are such as require care in nursing, and the best medical skill for their proper treatment.

PUERPERAL CONVULSIONS.

[Extracts from a paper read before the New Haven County Medical Society, and communicated for the Boston Medical and Surgical Journal.]

THE chief object of medical association should be the diffusion of practical knowledge among the members of the profession. Ever learning and never satisfied with the experience and observation of others, the physician who has grown gray in practice and become a shining light

among us, is still a learner at the bed-side, and often finds the study of clinical facts more reliable and permanently useful in the healing art, than speculative reasoning or prescribed rules of medication laid down by authors of book-authority. True it is, that with all the light of past ages, we are still far, very far, from the attainment of absolute precision or knowledge in our inquiries into the actual or essential nature of almost any disease; and perhaps little is hazarded in saying that such exact information can *never* be reached. Ignorant of some of the mysteries of the healthy functions, surely it is not surprising that the moving power of their morbid phenomena should be hidden from our view. But such is *our* profession; and although the field be wide for investigation, yet we have no room for *exclusive systems*, and our aim should be to settle the value of all pretensions in medicine, upon the broad basis of correct *general principles*, deduced from known, established facts. With this brief exordium, I propose, gentlemen, to offer you a few remarks upon puerperal convulsions, with the results of my own experience in this disease—so formidable in its attack, so obscure in its pathology, so often fatal in its termination:

Convulsions, of whatever kind or degree, are more or less alarming to the physician; but none are more so than those that appertain to the pregnant female. In this case it is always a disease of the most imminent danger, and calls loudly for prompt, decisive treatment. Denman has seen it prove fatal in thirty-five minutes from the attack; and Hamilton, Dewees and others, furnish us with numerous examples of death supervening in from twelve to twenty-four hours. Puerperal convulsions exhibit considerable variety in their character. Sometimes they are nearly allied to hysterical, sometimes to epileptic fits; while, again, they partake more of the tetanic. At other times they assume the more fatal or apoplectic tendency. Hence the practical division, by some authors, of the genus "eclampsia" into four orders or species; viz., the hysterical, the epileptic, the tetanic and the apoplectic. Each of these has its distinguishing features; but it is unnecessary for me to give them in detail, or stop to inquire how far the constitution or temperament of the patient may favor the occurrence of one or the other of these forms. But the distinction is highly important, as modifying the indications of treatment. A woman of the nervous, anemic temperament, laboring under hysterical eclampsia, would not survive, in my opinion, the sweeping, heroic treatment of depletion to the amount of seventy or eighty ounces of blood in less than twelve hours, as practised and recommended by a writer in a recent number of the "St. Louis Medical and Surgical Journal." This might do for the apoplectic variety, and be worthy of imitation in cases of like severity. * * * * *

The pathology of puerperal convulsions is involved in much obscurity, autopsic examinations having thrown but little light upon the subject. A small quantity of serum is usually found, in those who die of this disease, in the ventricles of the brain. Its veins and sinuses are feebly engorged; its membranes and substance somewhat redder than natural. But in numerous instances even these unsatisfactory symptoms exist only in a doubtful degree. Sanguineous effusion between the pia and dura mater

is sometimes discovered. Heart often found flaccid and empty. Lungs either congested or unusually pale, and small quantities of yellowish serum contained in the thoracic and abdominal cavities. Such is the record of Hooper, Denman, Velpeau and others. Some late writers regard the spinal system as chiefly concerned in the production of this disease. But so far as I can learn, dissections have not shown it to be organically affected, to any great extent. The truth is, the gravid uterus is the "*primum mobile*" in this affection, and a peculiar, irritable, susceptible or excitable state of the nervous system, or an over distension of the bloodvessels of the head from continued pressure, or some local cause acting *through* the nervous centres to the brain, prove leading strings to its development; and further than these considerations, we are left in doubt as to the true etiology of this disease. * * *

During a practice of 19 years I have had five well-marked cases of puerperal convulsions in 1128 pregnant females. Three of these were in women with their first children, and two in those who had had several. One was in the sixth month; the remainder in the ninth, or during parturition. Two cases proved fatal. If I had taken no notes of these cases, they would now be fresh in my recollection, so impressive and so distinct are puerperal convulsions. I have conversed with physicians of twenty years full practice, and they had *never* met with a single case of this form of disease, which inclines me to think that I have had more than my share. Madame Lachapelle met with puerperal convulsions only sixty-five (65) times in forty thousand pregnant women, and one third of these proved fatal.

CASE I.—This occurred in the early part of my practice, in 1835, while residing in Newtown. The woman, Mrs. B., was of a full plethoric habit—short, thick set, of the sanguine temperament, a hearty eater and great worker, 39 years of age, and in labor with her first child. Labor had been tedious, but not severe, having had regular pains forty-eight hours. The head of the child had reached the inferior strait, and was pressing upon the external parts, and every contraction of the uterus gave promise of speedy delivery. Suddenly, and during a recurrence of pain, she went into a violent apoplectic convulsion. Her face was livid, drawn down upon one side, breathing stertorous, pulse full, not easily compressed, and every artery, especially the carotids, beating with prodigious force. I bled her from both arms largely—how much I know not, for I was half frightened out of my wits. I sent for Dr. L., but he being absent, the messenger returned with Dr. B. It was now about two hours from the attack, and patient began to show some signs of returning consciousness, but she could neither speak nor be aroused, and uterine action had entirely subsided. Delivery was determined upon at once, and so dexterously did the consulting physician wield his forceps, that he removed the child in less than five minutes, throwing it half way across the room, breaking off the navel string close up to the belly. The child, of course, was dead. The mother recovered slowly, without any more convulsions or any untoward symptoms, except that I had to use the catheter for three or four days after confinement.

In this case there was no premonition of the attack, as usually de-

scribed by authors, but the patient had made no complaint, was exceedingly cheerful, and a few minutes prior to the convulsion was engaged in laughable conversation. So completely was I taken by surprise.

CASE II.—This occurred in Birmingham, Oct. 5th, 1846. The patient, Mrs. C——, was of the sanguine temperament, plethoric state of the circulation, 19 years of age, and threatened with confinement at full period with her first pregnancy. I was called at sunset, Sunday evening, and found her suffering with bilious emesis, pain and flashes of heat in face and head, dimness of sight, twitching of eyelids, irregular pains through the back, general uneasiness, and much mental disquietude. I had seen her a fortnight previous, and finding her pulse then full, with headache, I bled her sixteen ounces and gave her aperients. On cording her arm for another bleeding, she was immediately thrown into a violent epileptic convulsion. Bled her thirty ounces, dashed cold water upon the head, and in half an hour she recovered so as to speak. Made an examination per vaginam, and found no dilatation. Stimulating injections and cold applications constantly to the head.

Midnight.—Another convulsion. Face livid, whole body convulsed violently, skin hot and dry, pulse bounding, much frothing of mucus, &c. Bled her again copiously, and she had six convulsions in rapid succession.

Sunrise.—Another examination showed no signs of labor. Sent for Dr. Beers, of New Haven, who arrived at 11 o'clock, A.M. Three fits from sunrise to this hour, but patient now lay comatose, could swallow, head hot, pulse less energetic, and fetal life indistinct. Treatment for the last twelve hours had been antimonials, cold to the head, mustard to the lower extremities, &c. Dr. Beers examined, and found the os uteri high up, not the least dilated, and said the first stage of labor had not commenced. Gave no encouragement of recovery. Recommended antimony, to be increased with large doses of camphor, and would risk another bleeding if convulsions continued.

2 o'clock.—Another convulsion. Bled her very sparingly, and used ammonia, diffusible stimulants, &c. Vital powers yielding, pulse smaller, and respiration stertorous. She now had a convulsion as often as once an hour until she died, having had twenty-four from the first attack.

CASE III.—Called, December 24, 1848, to an Irishwoman, aged about 30, in the sixth month of her first pregnancy. Nervous, sanguine temperament, and general health delicate. She had been told, a few hours previous to my being called, that her husband was shipwrecked, when she went into convulsions, which continued through the day and night. Bled her once freely, and administered antimony and calomel. Ten hours from the attack, patient comatose, face edematous, eyes blood-shot, breathing stertorous. No operation from the calomel. Gave stimulating injections of turpentine and camphor, and copious evacuations followed, with symptoms improved. Camphor given in large doses. Twenty-four hours from the attack, os uteri fully dilated, ruptured membranes, and the mother was delivered without consciousness. She recovered rapidly.

CASE IV.—April 11, 1852, called to attend Mrs. W., aged 32, in the ninth month of her fifth pregnancy, having had one child at full period,

and suffered three abortions on or about the seventh month. Patient of nervous temperament, strumous, leuco-phlegmatic habit, subject to facial neuralgia. In her abortions she was always reduced by uterine hemorrhage, which had superinduced a dropsical tendency in the system. On my arrival, 12 o'clock, nurse informed me that "she had just had a dreadful fit," and I was surprised to find her partially hemiplegiac, her face greatly swollen, countenance ghastly pale, pulse 110 and not very full, with double vision, intense pain, heat and fulness in the head and face, dull pain in the back, &c. Bled her *pleno rivo* sixteen ounces, and applied mustard to the spine and feet. Examination showed no signs of labor.

2 o'clock.—Another convulsion, clearly apoplectic, threatening immediate dissolution. Breathing stertorous, face livid, foaming and frothing at the mouth, one side convulsed and the other motionless. Bled her ten ounces more from the same orifice, and applied ice to the head. Gave antimony in small doses, and used irritants to the surface liberally.

4 o'clock.—A third convulsion, but less severe than the former, and patient more easily aroused from stupor.

8 o'clock.—Dr. Hooker, of New Haven, in consultation. Os uter undilated. Patient now greatly prostrated; pulse 120; skin hot and dry; vision indistinct; acute cephalalgic pains; occasionally bilious vomiting, &c. Dr. H. advised the continuance of tart. emetic sparingly, with calomel or blue pill, followed by senna and crem. tartar, with frictions of tinct. cantharides to the spine, which had a decidedly salutary effect; after which, morphine, conium and camphor in large doses were given. She had no more convulsions. Diuretics were now freely given and continued for several days, with frictions to the spine, and nourishing, stimulating diet. Diuresis abundant.

April 18.—Taken in labor, with great prostration; pulse 130, small; cold, clammy sweat; constant faintness, and pains irregular and inefficient. Gave brandy freely, and with the use of forceps accomplished delivery, the child having apparently been dead a week or more. Mrs. W. slowly recovered, it being months before she regained the use of the side that was partially paralytic.

CASE V.—Sept. 24, 1852, 2 o'clock, P.M.—Sent for to attend Mrs. H., aged 31, in labor with her fourth child. She was of the nervous anemic temperament, exsanguinous look, subject to neuralgic pains in different parts of the body, and for two or three weeks had been confined to her bed and subjected to antiphlogistic treatment, with nervines, &c. She had lost, within the year, two of her children in convulsions, besides losing, four years ago, a sister in the same way, after giving birth to her first child; consequently she had a great dread of this form of disease, and often so expressed herself to me. A neighboring woman, who came in as assistant, began very imprudently to narrate the "awful fits" attending Mrs. W., the case just reported. Mrs. H. immediately commenced twitching, and in a moment was in a violent convulsion of the epileptic species. I instantly bled her sixteen ounces, and the spasms gave way; but she lay comatose, with slight stertor in her breathing.

6 o'clock.—Another convulsion. Bled her again twelve ounces. Os uteri undilated.

8 o'clock.—No more convulsions, but patient is now very comatose; eyes motionless; face swollen; pulse 120, and less energetic; extremities rather cold; respiration stertorous and irregular; involuntary discharges of urine and feces, and deglutition impossible. Blisters to the neck and spine; lower extremities enveloped in flannels wrung out of strong cap-sicum infusion and alcohol equal parts, with repellants to head, &c.

12 o'clock.—No better. Pulse 140 and small, at times hardly perceptible; profuse sweating; constant frothing at the mouth, and other symptoms indicating approaching dissolution. Nothing more could be done than to apply cold to the head and stimulants externally, and these were perseveringly kept up.

4 o'clock.—Little re-action; pulse not quite so frequent and more distinct, and breathing less laborious. Same treatment continued.

6 o'clock.—Skin hot and dry; patient grows restless; tries to turn in bed, apparently from occasional uterine pains; pulse 130, and more energetic. Os tincæ a little dilated. Began to have hopes, and thinking my patient might yet come within the rule of instrumental delivery, sent for counsel.

8 o'clock.—No worse. Os tincæ slowly dilating, but still very rigid. Less comatose; face a little flushed, and something like a labor pain every twenty minutes.

10 o'clock.—Os uteri more open. Bag of waters presenting. Ruptured the membranes with my finger, and applied fomentations to the abdomen, all with a view to induce uterine action.

12 o'clock.—Dr. Jewett, of New Haven, in consultation. Patient still comatose. Os uteri fully dilated, and the head of the child engaging within the superior strait. Decided to wait a little longer for the efforts of nature, and then deliver with the forceps. While we were at dinner, patient had a wrangling, continued pain, and the child was expelled into the bed *alive*, plump and healthy! On removing the placenta some symptoms of consciousness were evinced, but she could not be aroused. Pulse slower and softer; skin moist; heat of body more equally diffused, but deglutition still impossible. Blisters and counter-irritants had done good execution.

3 o'clock.—Remains the same. External applications continued.

12 o'clock.—Another convulsion. She now continued to have one as often as every hour, and died at sunset, Sept. 26th, having had forty-four distinct convulsions from Friday, 2 o'clock, P.M., till Sunday evening, 6 o'clock, being wholly unconscious from the first moment of the attack. I regret exceedingly that no post-mortem examination was allowed.*

Remarks.—The history of the foregoing shows that little reliance can be placed upon preparatory treatment. Both cases that proved fatal had been subjected to a course of antiphlogistics, with proper auxiliaries,

* May, 1, 1854.—Called in consultation with Dr. Church. Patient of nervous temperament and exhausted constitution; age 23; in labor with first child. Regular pains for three days, but for last six hours had been in convulsions. Depletions and appropriate remedies had been resorted to without materially mitigating the fits. After some delay, delivered her, with forceps, of a dead child, of ten pounds weight. Convulsions ceased after delivery, but she died on the following day, simply from exhaustion. It is proper to say that labor progressed favorably, except that it was tedious up to the hour of first convulsion.

prior to the attack. If there was any error in the medication of the last case, it was in my opinion the second bleeding. As this disease frequently occurs in the most exhausted subjects, in those worn down by profuse hemorrhages or other discharges, and exhibiting not one symptom of sanguineous excitement; when we consider that the appearances from dissections are often nugatory and entirely opposed to the idea of previous inflammation or even congestion, it is reasonable to suppose that venesection has often been pushed to excess, and even practised when it should have been altogether avoided. Velpeau has been obliged to confess that many of the French accoucheurs have been comparatively very unsuccessful in their treatment of eclampsia, and that Mauriceau and others who employed bleeding to a large extent, and indiscriminately, lost at least *one half* their patients; while Dr. Merriman, who was more sparing in the use of the lancet, and relied much upon calomel, camphor, henbane, &c., has asserted that he *saved two thirds of his*. The truth is, one case may be benefited by a *single* bleeding, and aggravated by a *second*, while another requires its repetition, perhaps half a dozen times in twenty-four hours. Far be it from me to disparage, in the least, the use of the lancet in this formidable complaint. In most cases it is our remedy and *only* remedy, and absolutely necessary to the salvation of our patients. Women in puerperal convulsions generally die of apoplexy, produced by the immense pressure exerted upon the cerebral column of blood during the fit; and hence to save the brain from harm, bleeding has become a *popular* and *almost universal* remedy. But its practice should be founded upon the scientific principle of studying each particular case, regarding the state of the circulation, habits and constitution of the patient as an index, rather than the violence of the disease.

The foregoing remarks have been hastily written, without any attempt at finish; and if no important suggestions are made, *criticism at least should be disarmed*.

A. BEARDSLEY.

Birmingham, Ct., May 26th, 1854.

FOREIGN CORRESPONDENCE—LETTER FROM PARIS.

[Continued from page 363.]

INFLUENCE of the medulla oblongata and the pneumo-gastric nerves upon respiration and life. We have seen, in the preceding paragraphs, that Brodie and Legallois cut the medulla oblongata, or, what amounted to the same, decapitated animals, when they wished to produce artificial respiration; that the first of these experimenters, and M. Bernard also, had established the cooling of the body which was manifested after their operations. Other phenomena can still be observed, and which have a connection with the subject under consideration. The respiration, considered only as a physical action, is maintained by insufflations, and the air ceases not to be in contact with the blood, thereby changing it from black to scarlet. M. Bernard, by the following experiment, to assure himself of what might pass, placed the head of a dog, upon which he had made

a section of the medulla oblongata, in a large bell-glass, by the means of an opening through a thin portion of wood upon which the bell-glass reposed; and he proved that oxygen disappeared and carbonic acid was produced about the same as in the normal state. This change, nevertheless, is not so complete as in real life, and whenever the nervous line is destroyed between the lungs and the medulla oblongata, we see all the *physical acts successively diminish*. The force of contraction of the left ventricle of the heart soon begins to be diminished, as we can assure ourselves by applying a *manomètre*. It is even so with the other muscles of the body; we can follow the diminution of their contractility by the use of the galvanic current. The secretion of the urine in particular ceases equally to take place.

M. Brodie attributes these phenomena to the absence of the brain caused by the decapitation of the animal. But it does not depend upon the brain; for in cutting the spine, the effect is the same; and, moreover, the animal can still breathe when we remove the cerebrum and cerebellum. The essential cause is in the prolongation which unites the brain proper to the spinal cord—the medulla oblongata. This is the *vital knot*; it corresponds to the *collet* of vegetables. This part presides over the nervous influence and the respiration. Such also has been the result of the experiments of M. Flourens. For example, when the spine is cut on a level with the pneumo-gastric nerves, all the phenomena of life are arrested; the capital point is limited below by the insertion of these nerves, and above by that of the acoustic nerves. If a section takes place below the pneumo-gastric nerves, the animal respire in some manner by the head; his chest is paralyzed. On a level with these nerves, we can hinder the respiratory action above as well as below; life can no more be continued.

It is otherwise when the medulla oblongata is preserved and the animal is destroyed by poison or asphyxia. For this demonstration, M. Bernard poisoned a dog by the use of *curare* (a poison brought from South America, and used by the natives to poison their arrows). In this case, however little the heart might be able to propel the blood, some insufflations re-animated life. Not only was oxygen absorbed and carbonic acid exhaled as in the normal state, but still the circulation was maintained and also the heat. The secretions continued to operate. One can even augment or diminish their proportion, according to the nature of the insufflations. If they are prolonged, the tears become more abundant, and it is the same with the urine. The secretion of sugar in the liver can be so much increased, that the animal may become diabetic. The phenomena which result from the section of the medulla oblongata are similar to those which we observe when the pneumo-gastric nerves are cut. In respect to this, many explanations have been given; but the most important matter has been omitted—that is, the action of the nervous system upon the lungs. M. Bernard has studied these phenomena, independently of the obstacles which may show themselves in the larynx, bronchia, &c.

Whenever the section of the pneumo-gastric is made, the respirations become lighter and less numerous; they continue to diminish. In a dog,

when there are 24 per minute, there were, the next day after the operation, only 16; a little while after, only 7 or 8. The rabbit dies sooner than the dog; the first after 24 hours, the second after two or three days.

How does death supervene? Some have placed the cause in the heart, the digestive tube, &c.; but the greater number of physiologists have thought that the animal succumbed in consequence of the changes and alterations which are produced in the lungs. These changes, nevertheless, do not hinder the free access of air in the lungs. The movements of respiration continue to be executed, and the black blood becomes red as before. If some have said to the contrary, it is that they have not taken account of certain indispensable conditions. M. Bernard has even recognized, by the following experiment, that a greater quantity of air penetrated into the lungs after the section of the nerves. He laid bare the trachea of a rabbit, and adapted to it an India-rubber tube whose free end was plunged into a graduated bell-glass filled with water. At each inspiration, the water rose in the glass and replaced the inspired air. Before the section, the rabbit inspired only 20 *centimetres cubes* of air; whilst after, he inspired 32, that is, nearly one third more than in the normal state. Therefore the respirations, if they were not as frequent, were more complete. The section leads, then, to no trouble as it regards the contact of air with the blood.

The cause of death is not, therefore, in an alteration of the lungs. Following Legallois, these organs would be always engorged with blood, which determines asphyxia in hindering the contact of air. It is very true that, in rabbits which are young, this engorgement is constant, although it is established only gradually. But in many animals this lesion is not found. M. Bernard has established this particularly in old dogs; their arterial blood continued to be scarlet—and when they died, their lungs were healthy.

These experiments are still more confirmative if we operate upon birds. The section of the pneumo-gastric nerves equally produces death, without finding any pulmonary engorgement. M. de Blainville, who has made some experiments upon this class of animals, thought that their death ought to be attributed to inanition; but this cause cannot evidently be invoked, for a dog can be deprived of aliment, and survive till the 19th or 20th day; whilst after the section of the pneumo-gastric nerves, he can live only about three days. During abstinence, the liver continues to produce sugar, although in less quantity than if the animal ate; after the section of the pneumo-gastric nerves, this metamorphosis takes place no more.

Where, then, shall we seek the explanation of death? It is evidently in the lesion of the nervous system. The animal is found in the condition of the one on which was practised the insufflations after the section of the medulla oblongata; the lungs receive the air, but they can use it no more. When the pulmonary lesion is manifest, it is not instantaneous; it is consecutive from a want of harmony which has supervened between the respiration and the pulmonary tissue—between the effort that the lung makes, and the resistance of its tissue. In the normal state, the harmony, which, here, is at fault, exists everywhere. When one makes

a muscular effort to raise a weight, he knows by instinct the moment when the resistance is too strong, and he is arrested. Charles Bell has called this sensation *sens musculaire*. Some curious experiments have been made, to this purport, upon horses. After having cut, at their feet, the nerves of sensation, the former were tied, and they strove with considerable efforts to remove the obstacle, but being deprived of special sense by the section of their nerves, their efforts were without calculation, and they moved them to a degree that caused their bones and muscles to be broken. It is the same in animals in which the pneumo-gastric nerves are cut: we see the inspirations very strong, and beyond what they ought to be.

[To be continued.]

DENTAL EDUCATION.

BY J. S. ROCK, M.D., DENTIST.

[Communicated for the Boston Medical and Surgical Journal.]

THE importance of a liberal education to the practising dentist, is a subject which we think has been too much overlooked by the profession. Every intelligent person is ready to admit that all professional men should be liberally educated—while the dentist, an exception to the rule, if he has learned a few technical terms from some anatomical work, possesses the strength of a blacksmith, the mechanical ingenuity of a tinker, and a flippant tongue, goes forth with a few “specimens” (made by some journeyman), as a scientific dentist, when, in fact, he cannot distinguish between the normal and abnormal condition of the tissues, and in the majority of cases, if called upon, could not discriminate between neuralgia and odontalgia.

Dentistry has always been too much looked upon as a trade, in which mechanical talent is alone called into action, and only a moderate share of that; the result is, too many have been induced to enter into it with the (vain) hope of learning all there is to be learned in a few months, at a trifling expense, with the expectation of a fortune in a short time. This ambitious desire to make money, at the expense of life, or limb, or both, is much to be deprecated. A man who has no higher motive than money-making, is unfit to be placed in so responsible a position as that of a dentist or physician.

We have dental societies and colleges now, and we expect to see, ere long, a distinction between the scientific dentist, and the semi-ignorant practitioner. It will take time, patience and perseverance, on the part of the profession, to accomplish this end, and these institutions will do much to forward it; able men are in the work, and it must succeed. Then, and not till then, will dentistry be exalted to that position which the scientific portion of the profession are aiming for, and which it is destined sooner or later to attain.

Our plan is, that young men, before entering the profession, shall finish their English and classical education; for we assure them that a sound classical education will open stores of learning to them, which are sealed books to others. Technical terms abound very luxuriantly in the differ-

ent branches of our science, and these have nearly all been derived from the classics. Their acquisition is always a matter of difficulty to the English scholar, but that difficulty is much lessened if the student is familiar with the Latin and Greek. They will find that there is a great deal to be learned from the ancient authors, far more than enough to encourage them to read them in their original tongues.

There are many valuable works written on surgery, chemistry and dentistry, by the French and Germans, and we lose much valuable information if we are unable to read these languages. A general knowledge of the sciences is of great importance to the dental surgeon, and will furnish him with invaluable assistance in diagnosing. The object of all science is to discover facts and trace their relations; and unless we are acquainted with them, our judgment must be limited. They strengthen our minds and enable us to determine what any series of effects and causes will have upon each other, which is our great duty in investigating the cause of disease, and the application of the remedy.

We should also gain by every means an accurate knowledge of facts, and enlarge their number to the utmost possible extent; and beyond this, we should strive to attain to a habit of discerning the dependence of facts upon each other, and the whole upon general principles.

The mechanics of the human body is a subject of great interest, and will furnish the most perfect models for imitation; the varied action of the muscles are in harmony with the action of levers universally, for these laws have been deduced from the operations of nature, of which we have the most perfect illustration.

The science of acoustics is an invaluable aid to us in the physical examination of the lungs, heart, &c., and we now look to that science to resolve certain doubts which still envelope the subject.

Optics is another important aid. The benefits resulting from the use of the microscope in the study of anatomy and physiology, and the practice of medicine, is truly astonishing. A distinguished London surgeon says, "the smallest portion of a diseased structure, placed on the field of the microscope, will tell more to the experienced eye in one minute, than could be acquired from a week's examination of the crude mass of disease, as preserved in any museum." The same may be said of other branches of science.

The different temperaments, habits and modes of living are objects of vast importance, and should be well understood. The same medicine will often produce different effects upon different constitutions, and often in the same constitution. *Excgesis*, The administration of an emetic in one constitution will produce free emesis, while in another it may produce violent cramp in the stomach. Again, a cathartic given on an empty stomach will generally purge freely, but if given after a full meal will arrest digestion, and often produce nausea and vomiting. A slight wound in one person may heal by the first intention, while in another it may result in traumatic tetanus and death!

A general knowledge of the different branches of medical science is of infinite importance to the dentist, and without it he may not expect to excel. The sciences of medicine and dentistry are so intimately con-

nected with each other, that to separate the one from the other is to clip the branches from the trunk. The treatment of all diseases of the mouth, and the performance of all operations in that cavity, belong peculiarly to the dental surgeon: but if he is ignorant of said branches, it would be extremely dangerous for him to operate for a cleft palate, to extract a tumor, or to excise a superior or inferior maxilla, especially when we consider the difficulties which attend these operations, and the many vital structures which it is necessary to divide. But why call ourselves dental surgeons, if unable to perform a greater operation than the extraction of a tooth or the scarifying of the gums? If our knowledge in surgery extends no farther than this, it is very little if any superior to that of blacksmiths and barbers, who occasionally do the same.

We should also strive to obtain a thorough knowledge of physiological and morbid anatomy, so as to be able to diagnose correctly. We should examine the disease as far as needful for our purpose, and extend our views as far as possible to every thing that has a connection with it. There are many advantages to be derived from it.

1. It will be the means of suggesting to our minds the true nature of the disease.

2. It will enable us to solve any difficulties which may present themselves in its treatment.

3. From our thorough knowledge of the disease, we will be better prepared to treat it according to the principles of our art.

This habit of conceiving clearly and diagnosing correctly, is not to be learned from any set of rules, though these will assist and place us on the right track; but it is observation and practice which must form and establish this habit. We can then, as it were, with ease grapple with any disease which may present itself, our minds will soon become offended with obscurity and confusion, and restrained from rash judgment. If we adopt this course, we shall treat cases with credit to ourselves, and satisfaction to our patients. Being posted up in every branch directly or indirectly connected with our profession, we shall be prepared to resort to every expedient that science has placed in our hands; and when we fail in any case, shall have the satisfaction of knowing that we have done *all that could be done*.

Every practitioner is aware that in many cases in which he is called upon to prescribe, he has no precedent. In such cases, the skilful practitioner is seldom at a loss; he knows what is dangerous and what is not, what the constitution will bear and what it will not, and governs himself accordingly.

The man who treats symptoms, as such, is an empiric; while the one who labors to remove the cause is a philosopher. The one noticing pain in the head and face, immediately prescribes for neuralgia, while the other patiently challenges every part of the constitution to discover latent inflammation or local irritation, and having found it, proceeds at once to remove it—knowing full well that the effects may be expected to subside, when the cause has been removed. The former is perfectly satisfied that pain and soreness in a sound tooth result from exostosis, and proceeds at once to extract it; while the latter, diligently seeking the cause,

ascertains the pain to be sympathetic, and arising from a gravid state of the uterus. This habit is necessary at every step of our professional career. And not even in the simplest cases can we efficiently discharge our duties to our patient and ourselves without it. It is the very basis on which the practice of our art rests. The cultivation of it is raising our profession to the dignity of a noble art; the absence of it would reduce us to the position of charlatans.

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BOSTON, JUNE 7, 1854.

Meeting of the Suffolk District Medical Society.—The monthly meeting of this Society, for medical improvement, was held at the Society's rooms, Phillips Place, on Saturday evening last—the President, Dr. Buck, in the chair. Dr. Cornell read a paper on the treatment of consumption by the inhalation of the vapors of iodine and creosote. He thought much benefit was derived from these agents in conjunction with other treatment. He also made use of the cod-liver oil, combined with bi-carbonate of potash, gum acacia, syrup of orange-peel, and peppermint. In addition to these means, he usually had his patients rubbed over, night and morning, with warm olive oil and rum. The doctor cited several cases, under his care, which had got well by pursuing this course of treatment. Dr. Bartlett did not believe in the efficacy of cod-liver oil, or inhalations of iodine, &c., in tubercular consumption; in fact, he was decidedly of the opinion that art was of no avail in this malady. The fatal termination might be postponed by various forms of medication, but ultimately the patient must die. Dr. Cabot had known a gentleman, with phthisis, who apparently recovered, by living in the woods with the lumbermen; but if he returned to civilized life, symptoms of his former difficulty began to manifest themselves, and he was obliged to go into the woods again. A desultory discussion was continued by the members, relative to the proposed methods of treating phthisical patients, from which it appeared that patients have done well under opposite plans of treatment.—Dr. Moore read a dissertation on quackery, which was severe upon the illegitimate practitioner, yet truthful in sentiment. The hydropath, homœopath and mesmerist he considered the greatest of the "humbugs," and their practices were exposed and justly denounced. Dr. Moore has, in common with us all, a just conception of the nature and extent of quackery, but we opine that neither legislation nor moral suasion will ever wholly prevent the charlatan from imposing upon the credulity of the people. The doctor's dissertation was listened to with great attention, and at the close, a vote of thanks was passed.—Dr. Moore stated that he had a case of exstrophia of the bladder, in a male child five weeks old. The President announced that Dr. Durkee had been selected to read the dissertation at the next meeting of the Society.—Dr. Dix presented a drawing of the eye of a patient of his, from which a membranous tumor had been removed. It was attached to the corpus ciliare, or margin of the iris. He could not say whether the eye would be saved by the operation. At 10 o'clock the Society adjourned.

Hospital for Females in New York.—A meeting was held in the lecture room of the Stuyvesant Institute, New York, last week, for the purpose of hearing Dr. Sims on the reasons why a hospital should be established in that city for the treatment of the diseases peculiar to females. The New York Times says, "The doctor spoke with great earnestness and directly to the point, at times becoming eloquent with his subject. He aimed, by the history of a Southern institution with which he had been connected, and its results, to show how much might be done in this city, and how great was our need. The attention was undiminished to the close, and it was evident that the right impression had been made. On sitting down, Dr. Griscom, of the New York Hospital, nominated Dr. Edward Delafield to the Chair, and Dr. Beadle as Secretary, which nominations were unanimously confirmed. Dr. Griscom handsomely endorsed the sentiments of the lecturer. He said they were the sentiments of the profession, and that the interests of humanity united in demanding such an hospital. He remarked, incidentally, that a large percentage of the cases of insanity in our insane asylums is due to the neglected diseases of females. A physician present proposed that a committee of ten be appointed, consisting of five physicians and five laymen, to perfect a plan for such an establishment as had been proposed. Dr. Griscom moved to amend, and it was resolved that Drs. Delafield and Beadle be added to the committee. The committee is to be named by the President, and announced hereafter through the daily press. Meanwhile the project will be canvassed by the people, and, we trust, not ineffectually. The labor of establishing a new hospital in this city is not a trifling one. But there is a demand for more hospital room, and, for these special diseases, a most urgent demand. We trust the benevolent will turn their attention this way."

Prevalence of Smallpox.—Neither common sense, legislative acts, the advice of physicians, or the terrors of death, seem to have any appreciable influence in securing to the multitude the blessings of vaccination. Hence smallpox, with all its attendant woes, spreads itself through cities, hamlets, and villages. The deaths every day occasioned by it are a warning voice to the living to protect themselves while they may—but it is a voice that dies away without being heeded. Notwithstanding the number of these deaths the present season, and which, in all human probability, might have been prevented by the simple process of vaccination, people will still live on, as long as they can, hoping, against history and observation, that they shall escape, and therefore, to save a shilling, defer the slightest of operations a little longer. But such delay is dangerous. The malady is still lurking about, and in readiness to attack all who are unprotected. Our medical friends should proffer the blessing of a general vaccination in their neighborhoods. If their advice and warnings are unheeded, they may wash their hands of all blame or participation in the neglect and its consequences.

Adulteration of Food and Drugs.—A convention of medical and other gentlemen was recently held at Birmingham, England, to consider the subject of adulteration in articles of food now extensively practised, and the best means of preventing it. One gentleman submitted a statement respecting the falsification of several articles of food, as also of drugs, which showed that bread was sold made from wheat flour largely adulterated with "horse bean meal," alum and jalap. It appeared that the large quantity of

alum used, had the effect of producing constipation among the consumers, and so, to counteract that influence, a little *jalap* was added to the bread. Coffee it was declared to be almost impossible to obtain pure, unless the unroasted berry was purchased. Vinegar was made from malt and sulphuric acid, with just enough of the pure article to produce its peculiar aroma. The very best of Stilton cheese contained calcareous nodules of carbonate of lime. Cream of tartar contained *three parts of alum* to one of the pure bi-carbonate of potash. The cream of a certain milkman, celebrated for its richness, was analyzed. It was found to be composed of very nice prepared chalk, a modicum of cow's milk, water, and *tinted with tumeric* to give it a rich buttery appearance. In a similar investigation at Paris, some three years since, it was discovered that some of the thick rich cream sold in that city, was composed of the *brains of calves*, and carbonate of magnesia. It is needless to enter into any further detail, at present, in this matter, but at an early day we may resume the subject, and speak of the adulterations in articles of food and medicines occurring at home.

Turkey and the Turks.—Messrs. James French and Co., the publishers, have kindly presented us with a beautiful copy of a work entitled, "Turkey and the Turks, by J. V. C. Smith, author of a Pilgrimage to Egypt, a Pilgrimage to Palestine, Letters from Ancient Cities of the East," &c. As will be perceived, it is from the pen of our industrious senior, who in his preface to the work says, "it is the epitome of a diary, regularly kept while travelling in the East, and originally intended for a domestic circle." It will be found a very interesting and acceptable book, and more particularly so at the present time, when every one is desirous of becoming better acquainted with modern Turkey, and the manners and customs of its inhabitants. The work possesses additional value from the fact, that being "a diary regularly kept," it may be relied upon as accurate, and will prove a useful guide to any one who contemplates journeying in those regions. It contains 320 pages, which are divided into twenty-seven chapters. The book is printed on excellent paper, and presents a beautiful typographical appearance.

The Necessity of a Mechanical Education.—A lecture by Dr. S. A. Cartwright, of New Orleans, before the Mechanics Institute of that city, and inserted in the New Orleans Delta, has been on hand several weeks, and should have been noticed earlier. Dr. C.'s suggestions are judicious and practical, and his plans for physical education—"the training of the muscles as well as the mind"—are well adapted to other meridians than that of New Orleans. He closes with the following remarks.

"There is a necessity for encouraging a mechanical education in New Orleans—because, of all the cities of the Union, it has a greater amount of that element which would make the light fancy trades and handicraft employments succeed—that element is taste, or a keen perception of the beautiful, and a love of trinkets, jewels and gewgaws, derived from the French, Spanish, Hebrew and Italian ingredient in its population.

"The establishment of a polytechnic school—one for boys and another for girls—would attract practical artists from all parts of Europe to settle in a city which patronized operative industry, by the establishment of schools. The fancy, ornamental trades would soon convert New Orleans into a magnificent bazaar, make it the focus of fashion, and bring hither all the world on our railroads to see and buy the beautiful creations of art.

"There would be no necessity of increasing the taxes for the establishment of such schools. The appropriation last year for schools was not consumed. The surplus, unconsumed, would be more than sufficient to establish the polytechnic schools, which, when once fairly under way, would support themselves. At present, New Orleans pays only 18c. for schools, while 142c. are paid for other purposes. In Boston, last year, 120c. were paid for schools, while only 87c. were paid for all other purposes.

"The sum of \$180,000, expended in New Orleans for schools, is too small, while that for other purposes of the city government is immensely too large, being estimated at \$1,600,000. If men's minds were turned out of the channel of improvident, useless expenditures and extravagance, into that of practical industry and economy, millions of dollars per annum would be taken off the taxes. The encouragement of the useful, practical arts is the most certain way to arrest improvident expenditures.

"If such arts were encouraged, there would be created so great a demand for apprentices, and all kinds of labor, that the orphan asylums would be forthwith emptied. The orphans, bound to good trades, and looked after by our present benevolent societies, or by the city authorities, would become useful members of society, instead of being a tax on it. The friendless, destitute emigrants, instead of being a burthen to the city, breeding epidemics from huddling together in squalid wretchedness in filthy hovels, would find employment if called on to aid in making New Orleans a great manufacturing city, abounding in handicrafts and light trades, which they could follow and enjoy their health from not being exposed to the sun.

"The sewing machines, lately invented, will be a great relief to females, enabling them to devote more time to those beautiful creations of fancy and art, so interesting to the mind, while they give the body an agreeable and delicate exercise—mixing grace, delicacy and health together. Homer's female characters, which have charmed the world for nearly three thousand years, were all occupied in ornamental and fancy work. That such work is healthy, is inferred from Penelope, after being engaged for twenty years in weaving tapestry, still retaining her youthful beauty to welcome Ulysses. The laborious toil to which Adam, after the fall, was expressly doomed, was not enjoined upon Eve."

Massachusetts Medical Society.—Because the anniversary meeting of this venerable institution is to be held a little out of the common centre of business the present season, it must not be an apology for absence of the members. Fitchburg is a beautiful town; and it is but a short trip to it from Boston, Worcester, Lawrence, Lowell, Springfield and other large places, by railroad, and hence no reason exists why there should not be a spirited representation from all sections of the State. By alternating the annual place of meeting with the metropolis and accessible points in the country, the profession will have an opportunity of interchanging civilities and cultivating those amenities of life which belong to refined society. We fully believe the members will have a good time in every sense of the expression, from the known character of the gentlemen charged with the duty of having everything in order. Being frequently asked on what day the meeting takes place, notwithstanding the Secretary has adopted the requisite means of informing the members, we repeat that Wednesday, June 21st, is the day.

Soda Drinking.—An immense quantity of soda water is required in cities, during the hot season, to meet the calls at almost every corner. It

is possible, and we believe not very uncommon, to use it to excess, and produce difficulties not easily remedied. A few glasses a-day are about as much as the stomach can well bear; but when a gobletful is swallowed every half hour, on a warm day, the habit becomes a vice, and the health must suffer. Too much of a good thing, whether of soda water or lobster salad, is worse than none at all.

Honors to an American Physician.—We are pleased to learn that another distinguished honor has been conferred abroad upon Prof. Martyn Paine, M.D., in his election as a corresponding member of the "Gesellschaft für Natur und Heilkunde zu Dresden, which is the first election of an American to that Society.

Virginia Medical and Surgical Journal.—Dr. Geo. A. Otis having removed from the State, his connection with this Journal has ceased, and Dr. J. F. Peebles, of Petersburg, has become associated with Dr. McCaw as editor and proprietor. Dr. P. is well known as a most valuable contributor to medical science; and we doubt not that the high character of this spirited and independent periodical will be fully sustained.—*New York Medical Times.*

Medical Miscellany.—Dr. Bauer's article in the New York Journal of Medicine, entitled a "Critical examination of a pathological specimen of softening of the intervertebral fibro-cartilages," is to be had in a pamphlet.—Ship fever is showing itself again to some extent in the emigrant vessels. These vessels have, also, imported considerable smallpox of late.—An ingenious mechanic of Vermont has invented a very curious and useful machine for the management of fractured limbs, which will soon be presented to the profession.—Geo. E. Eels, of Lithopolis, has recently been elected medical superintendent of the insane institution, at Columbus, Ohio. He is a native of New Hampshire. On the first of July Dr. E. enters upon his new duties.—Measles, which was rife a few months since, is now scarcely recognized among us.—Our city is unusually healthy, the deaths for a recent week numbering only 56.—Three daughters of a clergyman were recently burned to death in Kentucky by the explosion of a can containing *camphene*.—The cholera has made its appearance in Nashville, Tenn., 15 persons having died from it in one day.—An Indian woman died at Knight's Ferry, recently, at the advanced age of 142 years.—A marine diver was recently suffocated while 30 feet under water, on Lake Erie, owing to a defect in the air-pumps.

TO THE MEMBERS OF THE MASSACHUSETTS MEDICAL SOCIETY.—It is very desirous that those members who wish to attend the annual meeting at Fitchburg, and who intend to avail themselves of the reduction in the fare from Boston, should make immediate application to this office for tickets (\$1.50 the price to and from the meeting). Members from the country south and east, can have their orders answered through the mail or by express.

TO CORRESPONDENTS.—Report of a case of Lodgment of Meat in the Oesophagus, and a continuation of remarks on Self-limited Diseases, have been received.

Deaths in Boston for the week ending Saturday noon, June 3d, 88. Males, 42—females, 46. Accidents, 2—inflammation of the bowels, 1—disease of the bowels, 1—inflammation of the brain, 3—congestion of the brain, 2—consumption, 21—convulsions, 2—croup, 1—dysentery, 1—dropsy in the head, 5—drowned, 1—debility, 2—infantile diseases, 8—puerperal, 2—erysipelas, 1—scarlet fever, 2—disease of the heart, 3—homicide, 2—intemperance, 1—inflammation of the lungs, 4—marasmus, 1—measles, 4—old age, 4—pleurisy, 1—palsy, 3—scrofula, 1—smallpox, 5—teething, 2—tumor, 1—unknown, 1.

Under 5 years, 37—between 5 and 20 years, 7—between 20 and 40 years, 33—between 40 and 60 years, 6—above 60 years, 15. Born in the United States, 54—Ireland, 25—England, 2—British Provinces, 3—Germany, 1—unknown, 3.

Hardships of Physicians.—The following truthful paragraph is taken from the Daily Bee, of this city, the Editor of which, we believe, enjoys the sobriquet of "doctor." At any rate, if he never *practised*, his *theory* of the perplexities and hardships that the physician has to contend with, particularly in his first few years of practice, is correct.

"If we examine the life of the practising physician, we find it gilded and shining on the surface, but beneath the spangles, how much pain and hardship!—The practising physician is one of the martyrs of modern society; he drinks the cup of bitterness, and empties it to the dregs. He is under the weight of an immense responsibility, and his reward is but too often injustice and ingratitude. His trials begin at the very gates of his career. He spends his youthful years in the exhausting investigation of anatomy; he breathes the air of putrefaction, and is daily exposed to all the perils of contagion. View him in the practice of his difficult art, which he has acquired at the risk of his life! He saves or cures his patient; it is the result of chance, or else it is alleged that it is nature, and nature alone, that cures disease, and that the physician is only useful for form sake.

"Then, consider the mortifications he has to undergo, when he sees unblushing ignorance win the success which is denied to his learning and talents, and you will acknowledge that the trials of the physician are not surpassed in any other business of life. There is another evil the honorable physician has to contend with—a hideous and devouring evil, commenced by the world, sustained by the world, and seemingly forevermore destined to be an infliction upon humanity. This evil is quackery, which takes advantage of that deplorable instinct which actually seeks falsehood, and prefers it to truth. How often do we see the shameless and ignorant speculator arrest the public attention, and attain fortune, while neglect, obscurity and poverty, are the portion of the modest practitioner, who has embraced the profession of medicine with conscientiousness, and cultivates it with dignity and honor."

Medicine a State Institution in Spain.—The Gazette publishes a Royal decree to the following effect:—

"Art. 1. Every town and locality in the kingdom are in future to be provided with physicians, surgeons, and apothecaries, whose duty it will be to dispense medical aid to the indigent classes, and any other persons who may require their attendance.

"Art. 2. The existence of these physicians shall not prevent the free exercise of the medical professions in the same localities.

"Art. 3. The authorities will maintain in the free exercise of their profession the persons who have been legally accredited, in virtue of the present decree and other ordinances in force.

"Art. 4. The physicians, independently of their attendance on the sick, will have to take charge of foundlings, to decide whether substitutes are fit for the military service, and to visit sick soldiers passing through their districts. They are not to absent themselves from the town in which they practise during more than twenty-four hours without the permission of the Alcalde, and for a longer period without providing a substitute. Their salary is to be proportioned to the population of the district, the wealth of its inhabitants, and other local circumstances. They will be entitled to a pension after practising thirty years in the same district."—*London Times*, April 19.